City of Waterville Bicycle Pedestrian Plan:

Implementation Process and Assessment

For inclusion in Waterville's Comprehensive Plan

Reasons to plan for bicycling and pedestrian mobility:

1. **Transportation Opportunity -** According to 2010 US Census figures, more than 10% of Waterville residents walk to their jobs as the primary means of mobility. Another 2% use some combination of transit or bicycling as their primary means of transportation. Building and maintaining walking and cycling infrastructure is a marginal cost compared to infrastructure that is exclusively focused on automobile use. So it makes sense to develop multimodal transportation options for the City's residents.
2. **Social Justice and Economic Equality –** Over-emphasis on funding for automobile infrastructure has the effect of reducing mobility options for the people who are in the greatest need of inexpensive transportation options. Automobile ownership is out of reach for many. Providing for safe alternatives promotes opportunity for those who need it most.
3. **Health and Recreation -** Everyone walks to some extent, and health professionals are clear that walking is good for health. So the City's needs to make walking an attractive alternative for routine short trips and regular recreational activities. A more healthy community will result.
4. **Safety for All Roadway Users** - The most vulnerable members of society: our children, seniors who no longer drive, the disabled, and those less fortunate… all rely on walking and cycling to participate in society and the economy. Ensuring that these vulnerable right-of-way users are safe should be a priority for the City.
5. **Attracting Young Professionals** – Many cities are finding that young professionals are attracted to locations where they do not need a motor vehicle to get around. Thus attention to bicycle and pedestrian infrastructure pays dividends in attracting a new generation to our midst, and providing a reason for more of our graduating children to stay.

The crucial parts of a bike and pedestrian plan include:

1. **Bike Lanes** - Bike Lanes are delineated along wider roadways as a space specifically for cyclists. They separate lanes for cyclists from automobile travel lanes and thus give a sense of increased safety for both cyclists and drivers. They are normally distinct from parking lanes, and parking is not normally allowed within bike lanes, though such duplication of function is governed by local ordinance. Bike lanes are normally 5 feet wide, with one lane on each side of a road. They are bounded by a white line, 6 inches in width, painted on the roadway surface. Symbolic bicycle stencils are painted at regular intervals between the curb (if there is one) and the white boundary line. **Sharrows** – The word Sharrow is a conjunction of "Shared Use" and "Arrow". It is a stenciled symbol consisting of a bicycle and two chevron marks pointing in the direction of travel. The stencil is painted in white on the tar, generally in the middle of a travel lane to indicate that this lane is to be shared by bicycles and motor vehicles. Sharrows are widely used

in cities across the nation and are becoming more widely used in State of Maine. For roadways with on-street parking, sharrows are painted at least 3 feet left of a vehicle in order to clear the cyclist of the "door-zone" (where driver's side door opening can be dangerous for passing cyclists).

2. **Improved ~~Road Crossings~~ Intersections and Signalized Crosswalks** – Road crossings, especially at busy intersections should be provided with pedestrian-operated traffic lights that periodically stop all traffic allowing for exclusive pedestrian use. The busiest road crossings, and the ones across wide roads, should be provided with screens at both ends to show the number of seconds remaining for a pedestrian in the crossing, and when it is not safe to cross. Ideally there should also be an audial component to the warnings.
3. **Multi-Use Pathways** – A multi-use pathway is a separated facility that is typically a paved surface, designed primarily for non-motorized users, including pedestrians, cyclists, joggers, skaters, and vehicles designed for the disabled. Multi-use pathways are often wider than a sidewalk, allowing the safe passing of people moving at different rates of speed. Eight feet is the preferred width, but for low volume pathways, five feet will suffice.
4. **Trails** – The word "trail" is applied statewide for various uses, including for motorized ATVs and snowmobiles. In the Waterville Comprehensive Plan, however, we intend that Trail apply only to non-motorized pathways for walking, running, -or bicycling. About 30 miles of such trails are already developed and in use in Waterville, with another 10 miles in surrounding Towns. Most are not paved. Some are narrow (single track), though most allow for passing or traveling two abreast (double track). Most trails in the Quarry Road Recreation Area are groomed for skiing in winter.

The process for putting the plan into action

Incremental Improvements – Bike lanes and Sharrows should be planned and installed at the same time as major -infrastructure improvements such as repaving or road redesigns are considered and implemented. The attached map shows existing roadways where such bike lanes and sharrows are recommended.

Grants for Multi-Use Pathways and Trails - Grants, mostly from the Recreational Trail Fund (for recreational trails) and the Department of Transportation (for routes that have a perceived transportation purpose) have been the major source of funding for existing trails within the City. These grants have been supplemented by private donations (mostly through Kennebec Messalonskee Trails and Friends of Quarry Road) and work performed by the City Public Works and Parks and Recreation Departments.

How can bike and pedestrian planning be assessed?

Surveys of bicycle and pedestrian use should be performed in parallel to surveys of automobile travel before and after improvements are made to the City's bicycle or pedestrian infrastructure. Oral surveys of residents would also be useful. The US Census provides good information on primary modal choice for trips to work and home.